

The opinion in support of the decision being entered today was **not** written for publication and is **not** binding precedent of the Board.

Paper No. 13

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte JOHN ALLEN, ALEC EWEN, and ROBERT GURNEY

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Appeal No. 1998-0277  
Application No. 08/478,009

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ON BRIEF

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Before COHEN, STAAB, and BAHR, Administrative Patent Judges.  
COHEN, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 20 through 25 and 29 through 33. These claims constitute all of the claims remaining in the application.

Appellants' invention pertains to a method of welding two double containment pipe sections together to form a double containment pipe fitting and to a method of forming an angled, butt welded joint thermoplastic coaxial pipe sections. A basic understanding of the invention can be derived from a reading of

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exemplary claims 20 and 25, copies of which appear in the  
APPENDIX to the brief (Paper No. 10).

As evidence of obviousness, the examiner has applied the  
documents listed below:

Windle	3,616,024	Oct. 26, 1971
Ziu ('088)	4,786,088	Nov. 22, 1988
Ziu ('260)	5,018,260	May 28, 1991
Lueghumer	5,188,697	Feb. 23, 1993
Butts et al. (Butts)	5,494,318	Feb. 27, 1996 (filed Dec. 15, 1994)

The following rejections are before us for review.

Claims 20 through 25 and 29 through 33 stand rejected under  
35 U.S.C. § 103 as being unpatentable over Windle in view of Ziu  
'260 and either Ziu '088 or Butts.

Claims 29 through 32 stand rejected under 35 U.S.C. § 103 as  
being unpatentable over Windle in view of Ziu '260 and either Ziu  
'088 or Butts, as applied above, further in view of Lueghamer.

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The full text of the examiner's rejections and response to the argument presented by appellants appears in the answer (Paper No. 11), while the complete statement of appellants' argument can be found in the brief (Paper No. 10).

#### OPINION

In reaching our conclusion on the issues raised in this appeal, this panel of the board has carefully considered appellants' specification and claims, the applied teachings,<sup>1</sup> and the respective viewpoints of appellants and the examiner. As a consequence of our review, we make the determinations which follow.

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<sup>1</sup> In our evaluation of the applied prior art, we have considered all of the disclosure of each document for what it would have fairly taught one of ordinary skill in the art. See In re Boe, 355 F.2d 961, 965, 148 USPQ 507, 510 (CCPA 1966). Additionally, this panel of the board has taken into account not only the specific teachings, but also the inferences which one skilled in the art would reasonably have been expected to draw from the disclosure. See In re Preda, 401 F.2d 825, 826, 159 USPQ 342, 344 (CCPA 1968).

Initially, this panel of the Board notes that we appreciate from a reading of the background section of appellants' specification (pages 1 through 3) that, prior to the present invention, those having ordinary skill in the art used a planar heating element (U.S. Patent No. 3,013,925) to melt endwalls of pipe sections (page 2), and after heating, the end walls were brought together and joined (butt-joint). Further, we are instructed that those having ordinary skill in the art also understood (U.S. Patent No. 5,185,049) that to butt-weld double containment pipe sections (page 3) opposing endwalls of the pipes should be brought into contact with a hinged planar heating element until the plastic of the pipes is softened, with the softened ends being subsequently joined together to form a solid butt-joint.<sup>2</sup> Appellants point out that the planar nature of this heating element precludes use for assembling complex fittings such as tee, wye, and cross or reducing fittings which require detailed calculation of angled mating surfaces.

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<sup>2</sup> It is apparent to us from the background section that those versed in this art, at the time of the present invention, clearly understood that welding techniques using a common heater for joining single pipe to single pipe was also applicable for joining double containment pipe to double containment pipe. This understanding is brought to the examiner's attention in the "REMAND TO THE EXAMINER", infra.

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Claim 20 is drawn to a method of welding two double pipe sections together to form a double containment pipe fitting wherein one of the two pipe sections extends at an angle away from the other pipe section. Claim 25 sets forth a method of forming an angled, butt welded joint in thermoplastic coaxial pipe sections wherein the pipe sections include a header coaxial pipe section and a branch coaxial pipe section.

The examiner's rationale in rejecting these claims under 35 U.S.C. § 103 starts with the Windle teaching of joining single thermoplastic pipes making a T or Y joint with one another wherein shaped sections are removed from the first and second pipes and heated and pressed together to form a joint between the first and second pipe. The examiner recognizes that this document does not concern itself with double containment pipes. To supply the deficiency of Windle, the examiner looks to the Ziu '260 teaching of joining one double containment pipe to another (Fig. 7) and to either the Ziu '088 disclosure showing a double containment pipe joined to a branch (Fig. 7) or the Butts teaching of a double containment pipe joined to a branch (Fig.8). Based upon this knowledge in the prior art, the examiner concludes that it would have been obvious to use a first double

containment pipe as the first pipe of Windle and a second double containment pipe as the second pipe of Windle in the process of Windle.

Appellants acknowledge the examiner's recognition that Windle does not teach and, alone, would not have been suggestive of the fabrication of double containment pipes, as claimed (brief, page 13). As to the Ziu '260 reference, appellants point out that it only teaches joining straight double containment lengths and is merely cumulative of art cited by appellants.<sup>3</sup> Appellants do not perceive either the Ziu '088 or Butts reference as being suggestive of providing a branch double containment pipe in Windle and heating it with a heater as in Ziu '260. In appellants' view, the proposed combination of teachings is made with inappropriate hindsight and the benefit of the present disclosure.

We fully appreciate the examiner's point of view in the matter of the asserted obviousness of the claimed subject matter.

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<sup>3</sup> It appears to us that appellants may, for example, be referring to the prior art discussed on page 3 of the specification which we referenced earlier in this opinion.

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However, we cannot support the rationale applied for the reasons explained below.

Considering the art relied upon by the examiner in the rationale of the rejection, it is quite clear that those practicing this art, when appellants' invention was made, fabricated linear double containment pipes using planar heaters (Ziu '260). As to angled pipe single pipe configurations, Windle reflects the knowledge in the art of using non-planar heaters. The examiner cites the Ziu '088 and Butts teachings as a showing that branched double containment pipes are known *per se*. However, these documents reveal more. With respect to angled or branched double containment pipes, Ziu '088 instructs those versed in the art of a method that encompasses welding laterally split (Fig. 6) or longitudinally split (Fig. 7) containment (secondary) pipes while the teaching of Butts (Fig. 8) is meager in that only the use of fusion rings is focused upon for welding additional pipe sections to a standard wye fitting for a carrier pipe.

All in all, we find ourselves in accord with appellants' view that only impermissible hindsight would have enabled one

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having ordinary skill in the art to apply the above teachings as proposed according to the examiner's rationale to yield the now claimed method. At this point, we would simply add that the Lueghamer patent does not overcome the deficiency of the other applied art. For the above reasons, the respective rejections of appellants' claims cannot be sustained.

REMAND TO THE EXAMINER

As indicated above, relative to the prior art disclosed in the background section of appellants' specification, it is very clear to us that those having ordinary skill in the art, when appellants' invention was made, well understood that a planar heater method of joining single linear pipes to one another was likewise known to be effective in joining double containment pipes to one another. With the above understanding of one having ordinary skill in the art in mind, and the prior art knowledge of a) non-planar heaters for joining branched single pipes, as evidenced by Windle and of b) the conventional configuration of angled or branched single and double containment pipes, the examiner should assess whether one having ordinary skill in the art would have been motivated to fabricate a conventional



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configuration of angled or branched double containment pipes relying upon a non-planar heater fabrication method, in light of the known non-planar heater joining method of Windle for fabricating branched single pipes.

In summary, this panel of the board has:

not sustained the rejection of claims 20 through 25 and 29 through 33 under 35 U.S.C. § 103 as being unpatentable over Windle in view of Ziu '260 and either Ziu '088 or Butts; and

not sustained the rejection of claims 29 through 32 under 35 U.S.C. § 103 as being unpatentable over Windle in view of Ziu '260 and either Ziu '088 or Butts, as applied above, further in view of Lueghamer.

Additionally, we have remanded the application to the examiner to consider the matter discussed above.

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The decision of the examiner is reversed.

REVERSED AND REMANDED

IRWIN CHARLES COHEN	)	
Administrative Patent Judge	)	
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	)	
	)	BOARD OF PATENT
LAWRENCE J. STAAB	)	APPEALS AND
Administrative Patent Judge	)	INTERFERENCES
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JENNIFER D. BAHR	)	
Administrative Patent Judge	)	

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